

Image Analysis for Personnel Intent

Award Information

Agency:

Department of Defense

Branch

Army

Amount:

\$69,994.00

Award Year:

2010

Program:

SBIR

Phase:

Phase I

Contract:

W15QKN-10-C-0037

Agency Tracking Number:

A092-034-0985

Solicitation Year:

2009

Solicitation Topic Code:

A09-034

Solicitation Number:

2009.2

Small Business Information

Irvine Sensors Corporation

3001 Red Hill Avenue, Building #4-108, Costa Mesa, CA, 92626

Hubzone Owned:

N

Socially and Economically Disadvantaged:

N

Woman Owned:

N

Duns:

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Abstract

To address the Army's need for a real-time intelligent imaging system capable of automatic identifying individual's suspicious and/or harmful intent from a standoff distance of 45 meters in unconstrained indoor/outdoor settings based on biometric data, Irvine Sensors Corporation (ISC) proposes to develop new Personal Intent Recognition Imaging (PIRI) system. This system is based on: a) several proprietary image processing algorithms using both spectral and spatio-temporal features and tailored to recognition of harmful/suspicious intent, and b) a novel hardware/software implementation of these algorithms in form of a combination of "smart sensors" (compact multispectral cameras augmented with FPGA-based processor logic) and a laptop computer. The PIRI system will offer reliable recognition of harmful intent in such military applications as border patrol, stand-off interrogation, surveillance and commercial applications for access control and surveillance at enterprises, shopping areas etc. In Phase I ISC will demonstrate feasibility of PIRI by implementing a proof-of-concept software functionally equivalent to the future PIRI operational prototype and based on preliminary determination of psycho-physiological and physical indicators most adequate for intent identification. Phase I will result in functional design of an operational prototype. In Phase II ISC will produce this prototype and demonstrate its functionality in an interactive real-time mode.

* information listed above is at the time of submission.